


# Building capacity for change: A key challenge for the delivery of water sensitive cities



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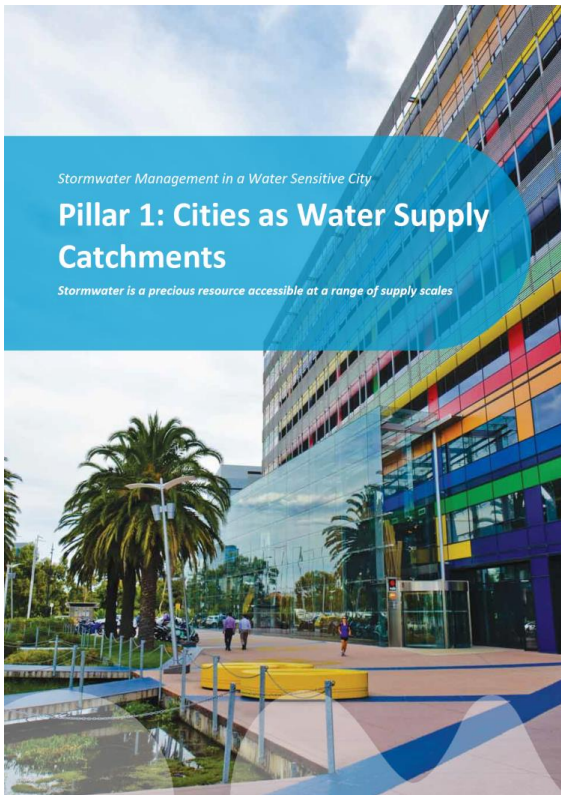


# A Water Sensitive City is



**Liveable + Resilient + Sustainable + Productive**

# Three Pillars of a WSC

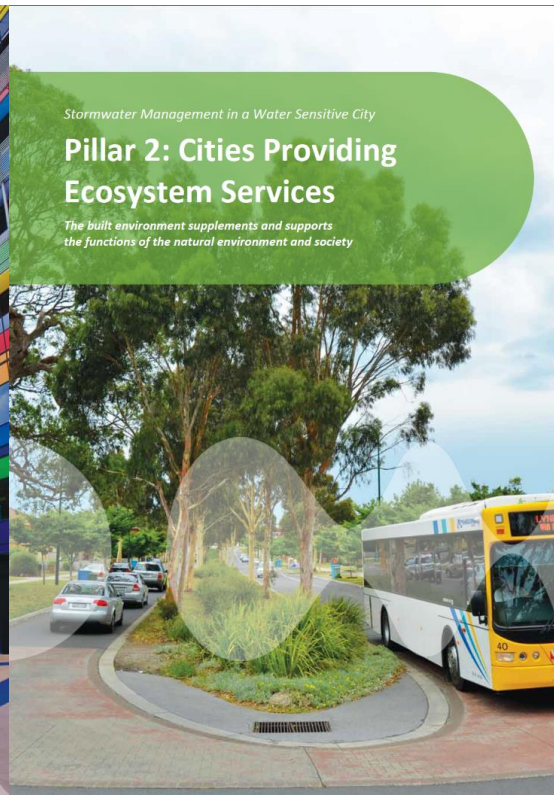


*Stormwater Management in a Water Sensitive City*

## Pillar 1: Cities as Water Supply Catchments

*Stormwater is a precious resource accessible at a range of supply scales*

Serves as a potential water supply catchment, providing a range of different water sources at a range of different scales, and for a range of different uses.

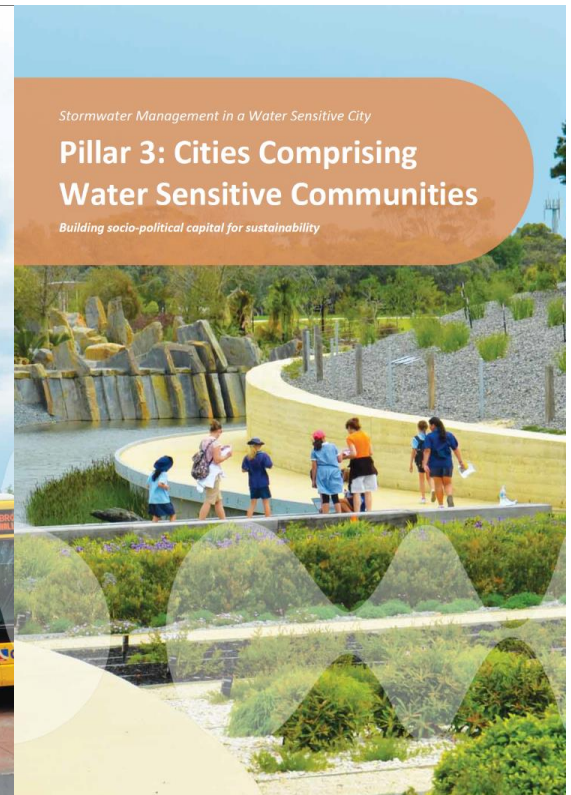


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## Pillar 2: Cities Providing Ecosystem Services

*The built environment supplements and supports the functions of the natural environment and society*

Provides a healthy natural environment, thereby offering a range of social, ecological, and economic benefits.



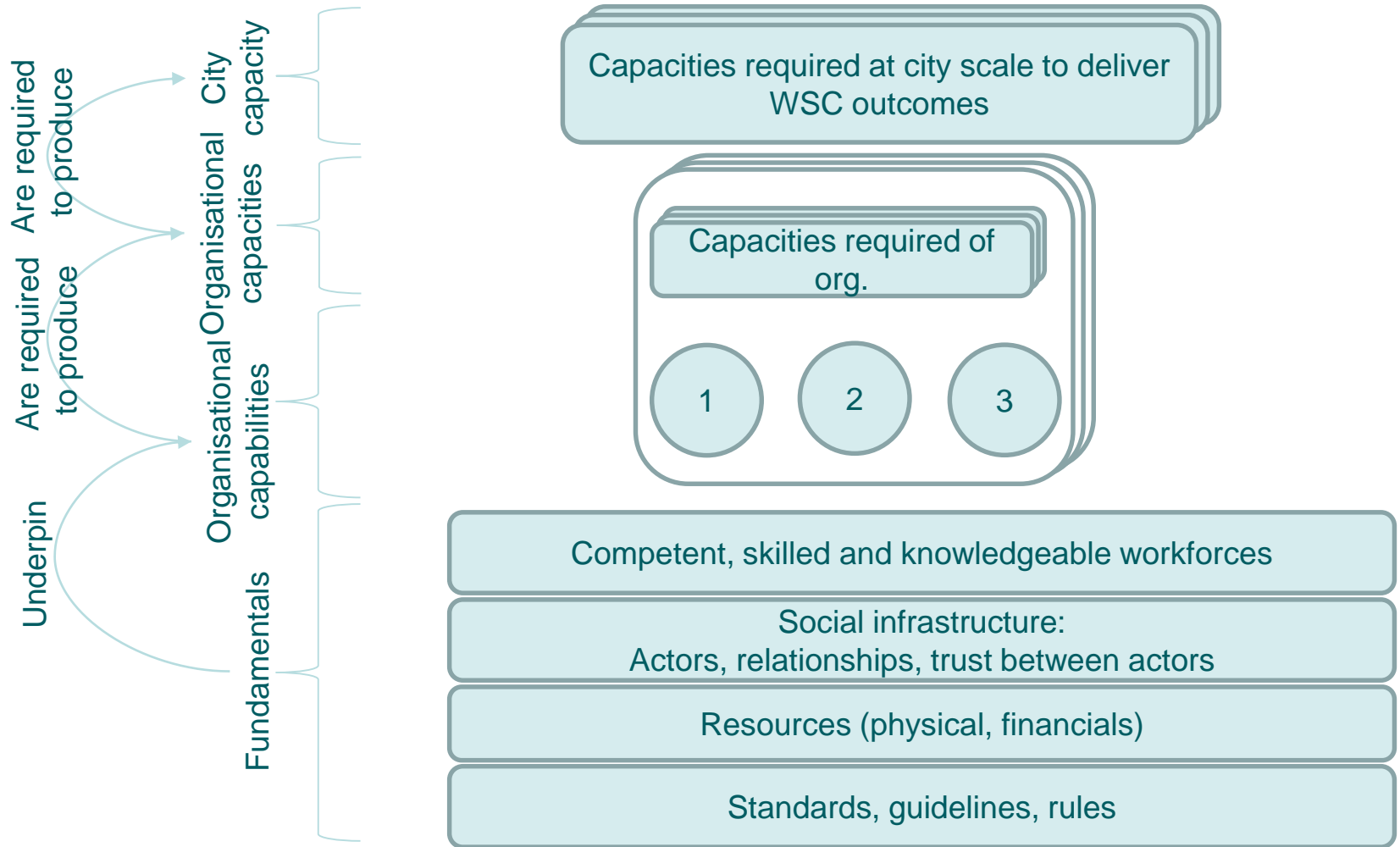
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## Pillar 3: Cities Comprising Water Sensitive Communities

*Building socio-political capital for sustainability*

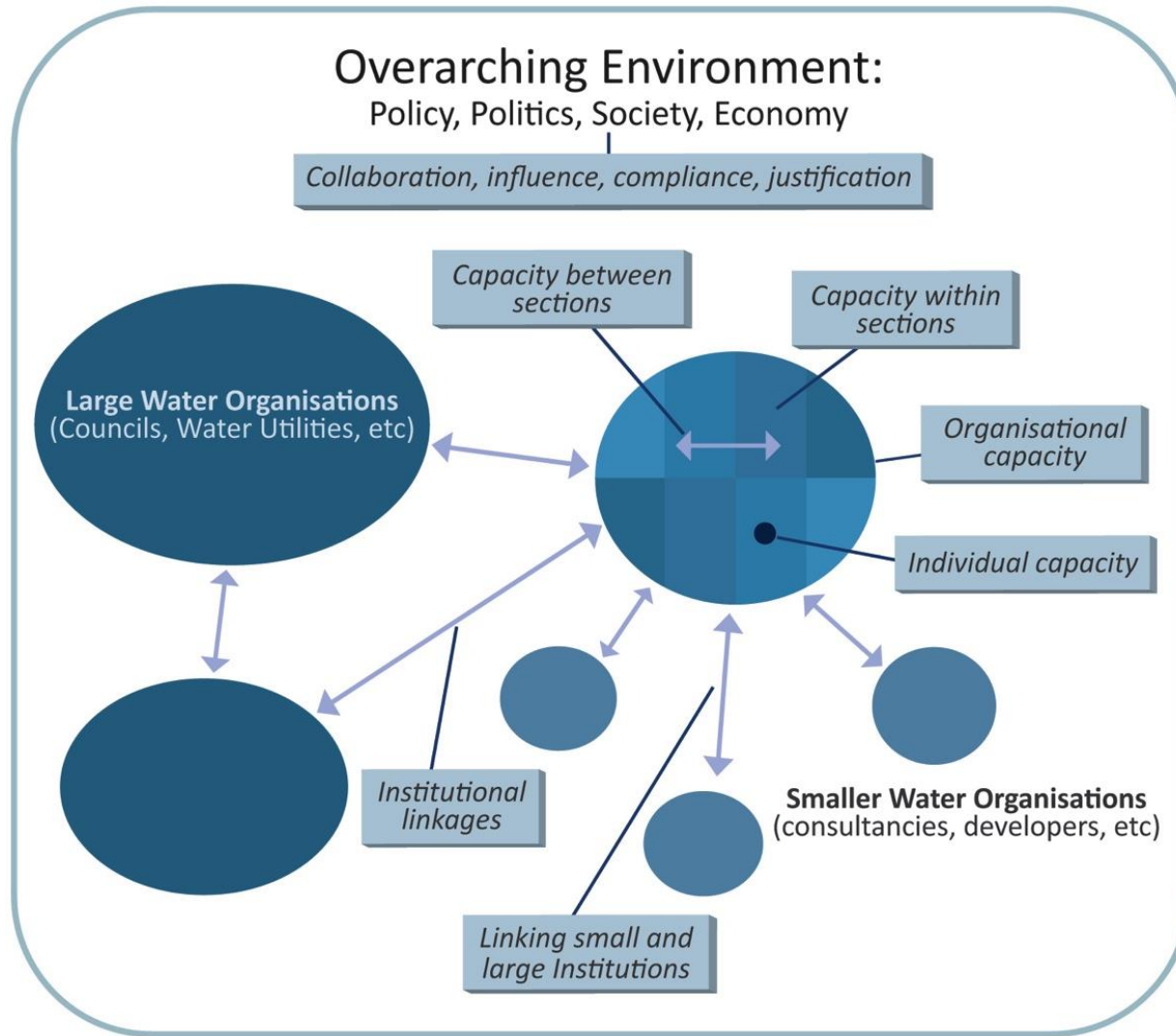
Consists of water sensitive communities where citizens are actively engaged in decision-making, and demonstrate positive behaviours.

# Challenge #1 – There's a lot to do!



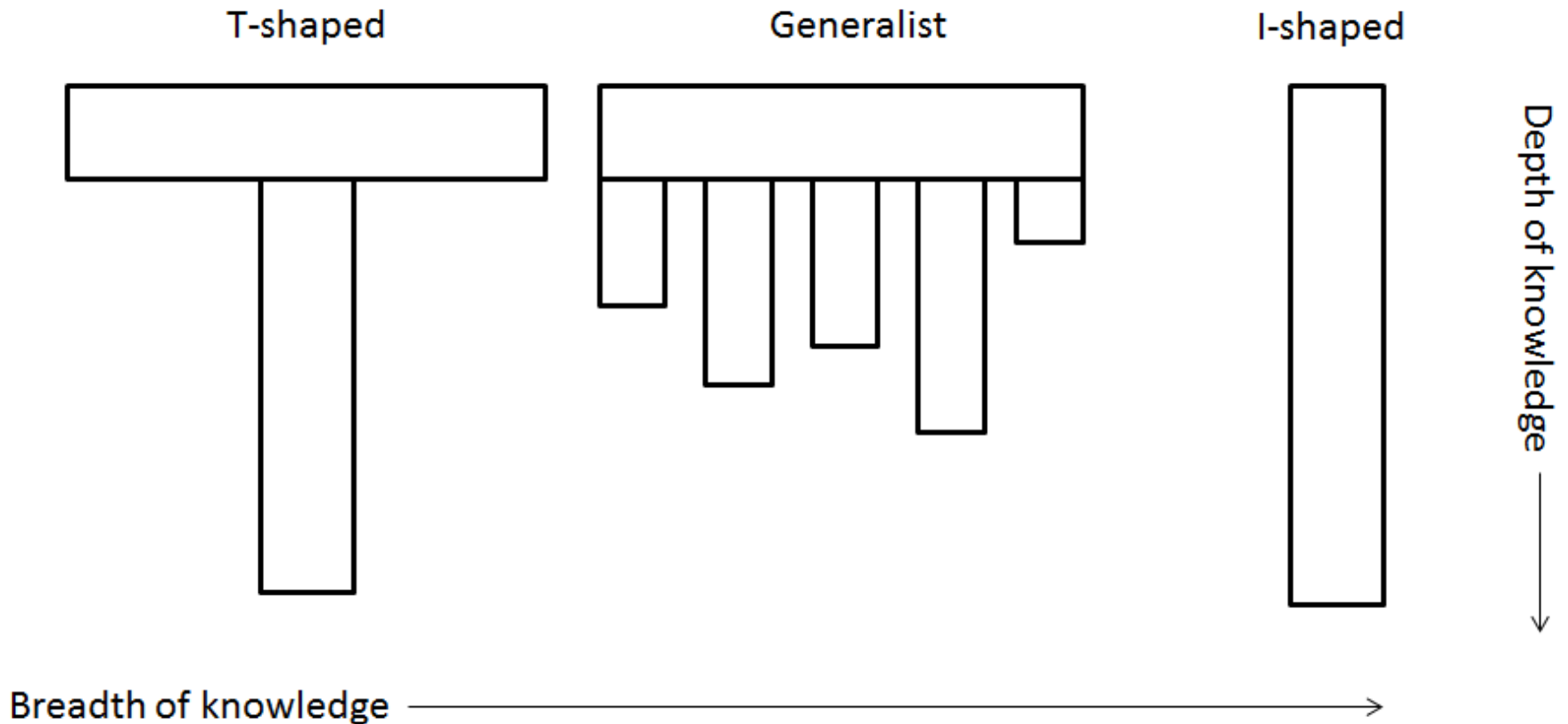
Source: McIntosh, B.S. & Orams, P. (2018), *Developing the capacity of cities in QLD to deliver WSC outcomes*

# Challenge #2 – Building capacity to collaborate



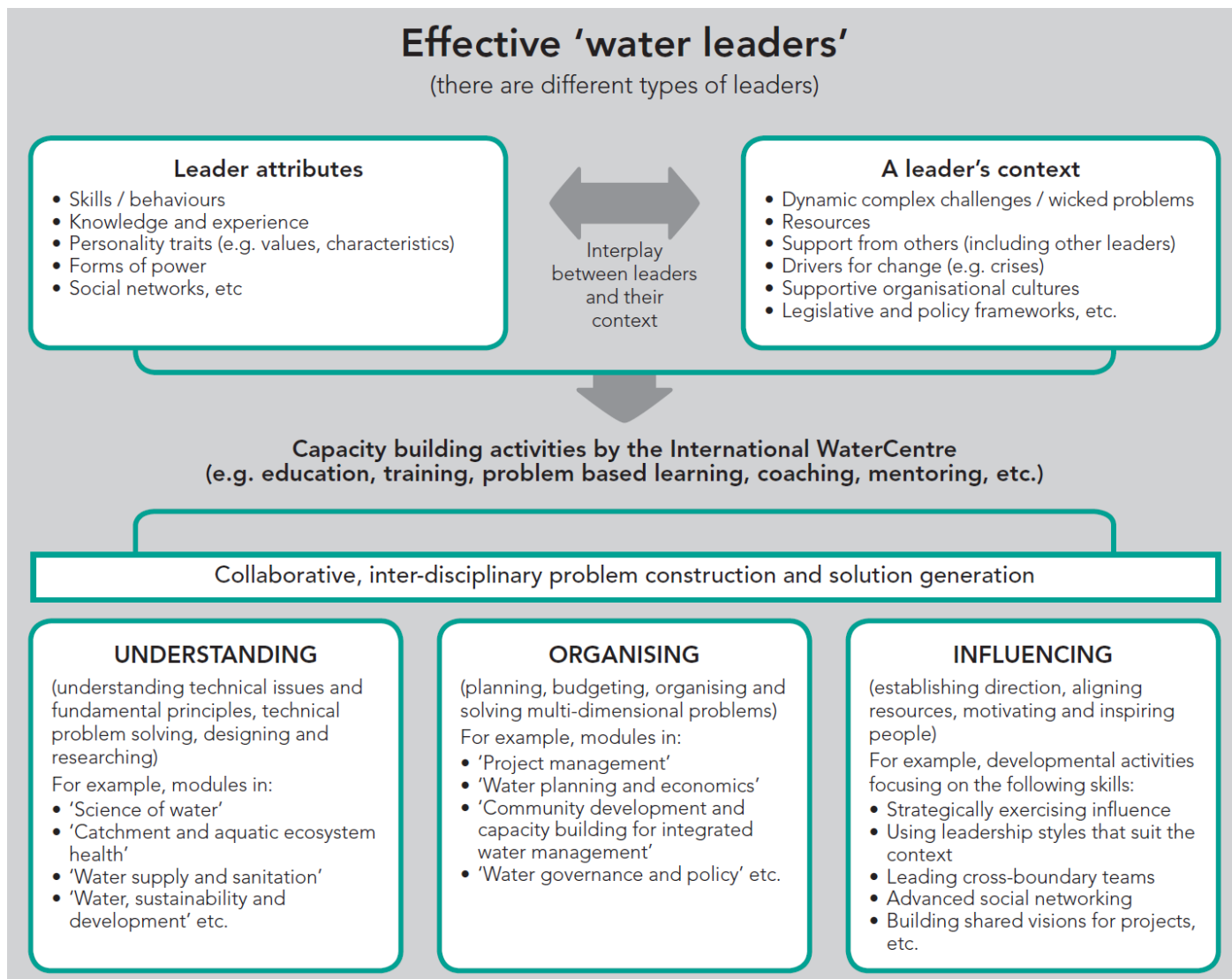
McIntosh, B., Pathirana, A., Veerbeek, W. and Wegener, P.  
(2015) *Water Sensitive Cities skills and knowledge needs An Australian and international assessment*, Melbourne, Australia: Cooperative Research Centre for Water Sensitive Cities.

# Challenge #3: What kind of people do we need?



Source: McIntosh, B.S. & Taylor, A. (2013), *Developing T-shaped water professionals*, *Water Policy* v15

# Challenge #3: What kind of people do we need?



# Challenge #4: Developing different types of knowledge

- Know-what
- Know-why
- Know-how

*Refers to knowing the activities or elements that are required to complete a task. Examples:*

- *Knowing what needs to be considered when making a business case for a WSC project.*
- *Knowing the processes required to recycle wastewater to drinking standards.*



# Challenge #4: Developing different types of knowledge

- Know-what
- Know-why
- Know-how

*Implies an ability to articulate a causal and conceptual understanding of why something works or happens. Examples:*

- *Why and how pollutants are removed by bioretention systems*
- *Why and how urban heat island effects can be mitigated by green infrastructure*
- *Why and how people perceive different streetscape aesthetics*

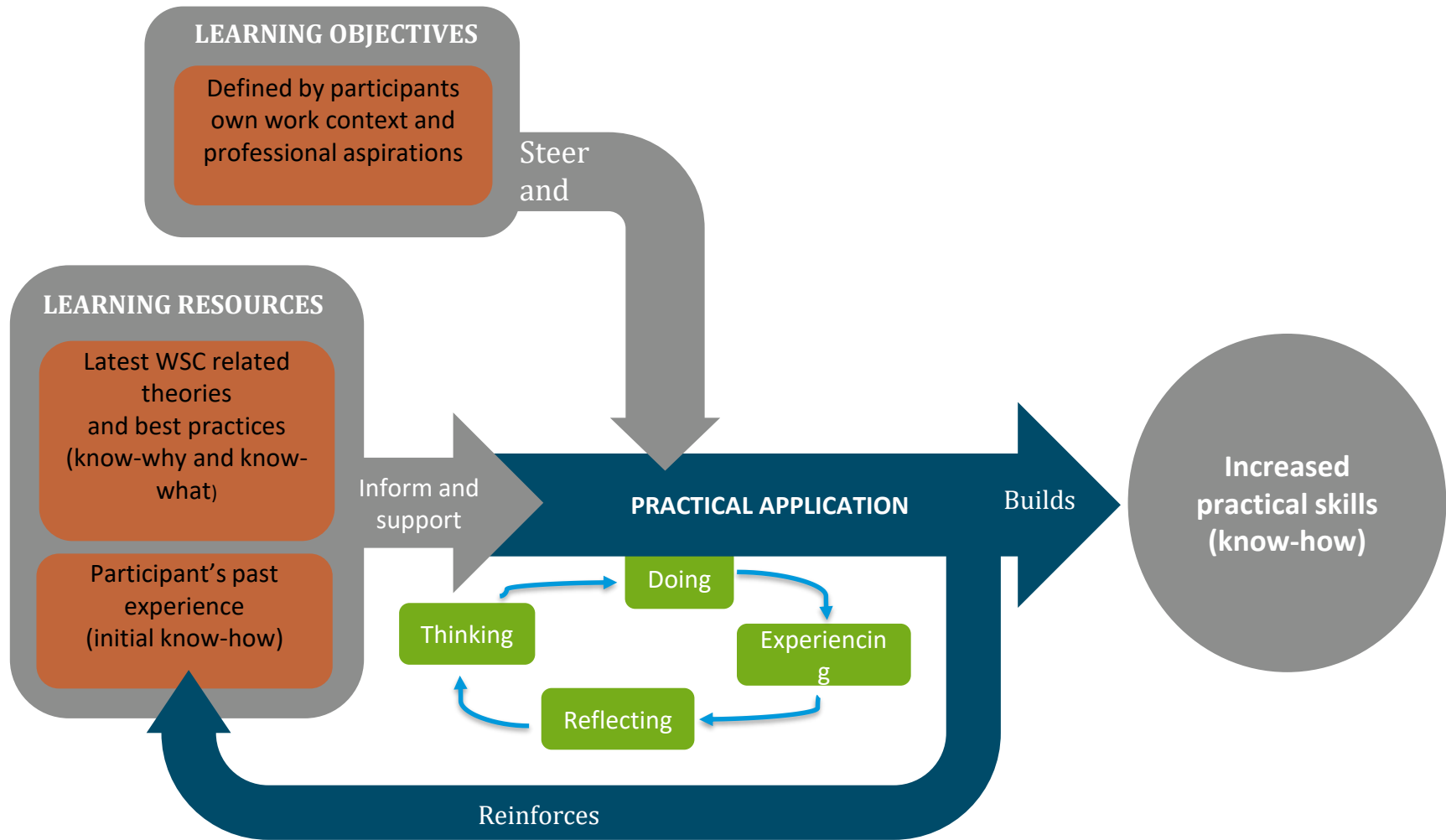
# Challenge #4: Developing different types of knowledge

- Know-what
- Know-why
- Know-how

*Implies the physical ability to produce some action and achieve some outputs and outcomes. This is captured in routines, techniques and tools. Examples:*

- *Undertake an economical assessment of a WSC project.*
- *Design a water quality monitoring scheme.*
- *Implement a community engagement strategy.*

# Challenge #4: Choosing and using effective learning models



McIntosh, B.S. (ed.). (2018). *Catalysing WSCs through professional learning: design and delivery recommendations*. Melbourne, Australia: Cooperative Research Centre for Water Sensitive Cities.